PATENT CLAIMS

1. A pre-filled ice cube bag containing freezable material and comprising:

two sheet-shaped foil layers having substantially identical geometrical configurations and defining an outer periphery, where the two sheet-shaped foil layers each defines a surface area of a minimum of 75 cm^2, such as 75-150 cm^2, 150-300 cm^2, 300-600 cm^2, 600-1200 cm^2 or 1200-2400 cm^2 or alternatively an area between 75 cm^2 and 2400 cm^2, such as between 150 and 1200 cm^2, such as between 150 and 600 cm^2,

a peripheral joint extending along said outer periphery of said foil layers, which peripheral joint joins said foil layers together mainly overlapping each other and defining a sealed inner chamber in the interior of said bag, in which inner chamber said freezable material is hermetically contained, which inner chamber defines a given inner volume when the two sheet-shaped foil layers are inflated to a maximum at a given maximum pressure of not less than 0.5 m water column pressure, preferably 0.5-1m or 1-1.5 m or 1.5-2 m water column pressure and divided into two or more ice cube compartments which are defined in relation to one another by separate joints of the foil layers where said inner volume constitutes a volume of a minimum of 50 cm^3, such as 50-100 cm^3, 100-200 cm^3, 200-300 cm^3, 300-400 cm^3, 400-500 cm^3, 500-1000 cm^3 or 1000-2000 cm^3 or alternatively between 50 and 2000 cm^3, such as 100-1000 cm^3, preferably between 100 and 500 cm^3, and

which freezable material constitutes a filling of no less than 80% of said inner volume in a non-frozen condition, but less than 91%, such as 80%-91%, preferably 80-95%, 85%-87%, 87%-89% or 89%-91%.

2. A pre-filled ice cube bag according to claim 1, **CHARACTERISED** in that the freezable material is contained in the pre-filled ice cube bag in an evacuated condition in the inner chamber.

3. A pre-filled ice cube bag according to claim 1, **CHARACTERISED** in that the freezable material is contained in said inner chamber in a non-evacuated condition in the inner chamber.

4. A pre-filled ice cube bag according to any of the claims 1-3, **CHARACTERISED** in that said freezable material is water, preferably mineral water and mainly bacteria free mineral water which is filled into the ice cube bag under bacteria free, hygienic and/or sterile conditions or that the freezable material constitutes an aqueous foodstuff such as a pasty material, e.g. ice cream, egg yolks, egg whites, cream, sauce, fruit juice, fruit purée, dairy products, such as milk, yoghurt or the like.

5. A pre-filled ice cube bag according to any of the claims 1-4, **CHARACTERISED** in that the individual ice cube compartment has a sub-volume which does not exceed 25 cm^3, prefeably not exceeding 20 cm^3 or additionally preferably is of the order of 10 cm^3.

6. A pre-filled ice cube bag according to any of the claims 1-5, **CHARACTERISED** in that the sheet-shaped foil layers of the ice cube bag are produced from polyethylene, preferably LDPE, MDPE or HDPE or another glueable or weldable foil material, preferably plastic or polymer foil material or aluminium foil material or combinations of such foil materials, including laminated or co-extruded polymer materials.

7. A pre-filled ice cube bag according to any of the claims 1-6, **CHARACTERISED** in that the pre-filled ice cube bag is contained in an external, sealed and gas proof packaging, preferably a gas proof plastic bag, such as a plastic bag produced from PA, PP, laminated or co-extruded plastic foils or metallized PE or PVC.

8. A pre-filled ice cube bag according to claim 7, **CHARACTERISED** in that the sealed gas proof packaging is air filled.

9. A pre-filled ice cube bag according to claim 7, **CHARACTERISED** in that said sealed gas proof packaging is evacuated.

10. A pre-filled ice cube bag according to any of the claims 7-9, **CHARACTERISED** in that said sealed gas proof packaging contains a number of pre-filled ice cube bags, such as 2, 4, 6, 8, 10 or 12 pre-filled ice cube bags.

11. A pre-filled ice cube bag according to any of the claims 1-10, **CHARACTERISED** in that the number of ice cube compartments in the inner chamber of the ice cube bag is larger than 2, preferably 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 30, 36 or 48, preferably 24.

12. A pre-filled ice cube bag according to claim 11, **CHARACTERISED** in that the ice cube compartments in the interior of the ice cube bag is grouped in separate sub-chambers.

13. A pre-filled ice cube bag according to any of the claims 1-12, **CHARACTERISED** in that the number of separate joints defining two neighbour ice cube compartments in relation to each other constitutes an odd number or preferably an even number.

14. A pre-filled ice cube bag according to any of the claims 1-13, **CHARACTERISED** in that the peripheral joint and said separate joints are all constituted by glueings or prefeably weldings.

15. A pre-filled ice cube bag according to any of the claims 1-14, **CHARACTERISED** in that said separate joints have configurations of circles, ellipses, line segments, triangles, rectangles, squares, polygons, arbitrary convex or concave contour defining configurations or combinations of arbitrary ones of the above mentioned configurations constituting point weldings, line segment shaped weldings or plate-shaped weldings.

16. A pre-filled ice cube bag according to claim 15, **CHARACTERISED** in that the individual plane or area shaped joint has a central non-joined area.

17. A pre-filled ice cube bag according to any of the claims 1-16, **CHARACTERISED** in that the two sheet-shaped foil layers are mainly rectangular.

18. Pre-filled ice cube bag according to any of the claims 1-17, **CHARACTERISED** in that the two sheet-shaped foil layers are produced from the same foil material of the same thickness.

19. A pre-filled ice cube bag according to any of the claims 1-17, **CHARACTERISED** in that the two sheet-shaped foil layers are produced from different foil materials and/or produced from foil material or foil materials of different thickness.

20. A pre-filled ice cube bag according to claim 19, **CHARACTERISED** in that the first foil layer has a larger thickness than the second foil layer and that the first foil layer is pre-shaped with recesses corresponding to the individual ice cube compartments.

21. A pre-filled ice cube bag according to any of the claims 1-20, **CHARACTERISED** in that tearing perforations are provided for the indication of the tearing of the ice cube bag.

22. A pre-filled ice cub bag according to any of the claims 1-21, **CHARACTERISED** in that one of the sheet-shaped foil layers or both of the sheet-shaped foil layers at one end or one side has a foil extension or foil extensions for the production of a gripping flap for the manipulation of the pre-filled ice cube bag.

23. A pre-filled ice cube bag according to claim 22, **CHARACTERISED** in that one or more of said flaps have a central aperture to provide a handle for the manipulation of the pre-filled ice cube bag with content.

24. A pre-filled ice cube bag according to any of the claims 1-23, **CHARACTERISED** in that each of said separate joints establishes a connection between the two sheet-shaped foil layers with a such joining strength and a such limited area related extension that the concerned joint, when the foil layers are subject to a separating force, cannot itself break but will provide a tearing or a perforation in one of the foil layers along the periphery of the concerned joint.

25. A pre-filled ice cube bag according to claim 24, **CHARACTERISED** in that said separate joints are placed with a such internal distance that the separate joints when providing the tearings or the perforations of one of the foil layers provides indications for a tearing line in one of the foil layers.

26. A pre-filled ice cube bag according to claim 24 or 25, **CHARACTERISED** in that the factor calculated as the individual separate joining area expressed in square millimetres divided with the circumference or the perimeter, measured in millimetres, of the same joint, lies within the area of 0.025 mm and 0.5 mm, preferably within the area of 0.125 mm and 0-375 mm, such as approximately 0.25 mm.

27. A pre-filled ice cube bag according to any of the claims 1-26, **CHARACTERISED** in that each of said separate joints have an area related extension corresponding to the area of a circle with a diameter between 0.1 mm and 5 mm, such as 0.5 mm and 1.5 mm, preferably between 0.9 mm and 1.0 mm, such as between 0.5 and 0.8 mm, between 0.8 mm and 1 mm, between 1 mm and 1.2 mm or between 1.2 mm or 1.5 mm.